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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,926	09/30/2003	Lester F. Ludwig	2738-014	8187
616	7590	03/26/2007		
THE MAXHAM FIRM 9330 SCRANTON ROAD, SUITE 350 SAN DIEGO, CA 92121			EXAMINER FLETCHER, MARLON T	
			ART UNIT	PAPER NUMBER
			2837	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/26/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/676,926

Applicant(s)

LUDWIG, LESTER F.

Examiner

Marlon T. Fletcher

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-96 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-96 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 12, 13, 17-19, 25-44, 46, 53-54, 58-60, 66-88, 90-96 are rejected under 35 U.S.C. 102(b) as being anticipated by Lindemann et al. (5,744,742).

Lindemann et al. disclose a system (figure 3) for control signal generation using detected dynamic characteristics of frequency components of an incoming electronic signal, said incoming electronic signal comprising a fundamental frequency component and at least one overtone component of a higher frequency than said fundamental frequency component, said fundamental frequency component and said at least one overtone component comprising an amplitude parameter and a pitch parameter, said system comprising: at least one bandpass filter (130) adapted to isolate said at least one overtone component from said incoming electronic signal to produce an isolated overtone signal; a separate signal parameter measurement element (125) operatively coupled with each filter of said at least one bandpass filter, wherein said signal parameter measurement element provides amplitude measurement of said isolated overtone signal resulting in an isolated overtone parameter signal; and a parameter signal processing unit for receiving said isolated overtone parameter signal, said

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parameter signal processing unit generating an outgoing control signal (140) based upon said isolated overtone parameter signal.

Lindemann et al. disclose the system, wherein said isolated overtone parameter signal comprises an amplitude parameter (column 8, lines 17-32).

Lindemann et al. disclose the system, wherein said signal parameter measurement element further provides pitch measurement resulting in said isolated overtone parameter signal comprising a pitch parameter (column 8, lines 17-32).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4-11, 20-24, 45, 47-52, 61-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lindemann et al. in view of Pattie (5,343,793) and Frick et al. (4,265,157).

Lindemann et al. are discussed above. Lindemann et al. do not disclose a vibration sensing element.

However, both Pattie and Fricke et al. disclose vibrating sensing elements (Pattie – (10); Fricke et al. – (12)). Pattie and Fricke et al. disclose a system, wherein said

incoming electronic signal is generated by a vibration-sensing transducer (10 & 12 - respectively) in response to vibrations of a vibrating element.

Pattie further provides the system, wherein said incoming electronic signal further includes a plurality of overtone components, wherein each of said plurality of overtone components have a higher frequency than said fundamental frequency component, said fundamental frequency component and each of said plurality of overtone components comprising an amplitude parameter and a pitch parameter, said system further comprising: a filter bank (54) comprising a plurality of said bandpass filters, wherein each bandpass filter of said plurality of bandpass filters is adapted to isolate a particular overtone component of said plurality of overtone components to generate an isolated overtone signal, said filter bank providing a plurality of isolated overtone signals generated by said plurality of bandpass filters, wherein; said separate signal parameter measurement element (56) is operatively coupled with each of said plurality of bandpass filters comprising said filter bank, wherein each of said plurality of signal parameter measurement elements is adapted to provide amplitude measurement of a particular isolated overtone signal of said plurality of isolated overtone signals to generate an isolated overtone parameter signal, and wherein; said parameter signal processing unit is adapted to receive said isolated overtone parameter signal from each of said plurality of signal parameter measurement elements, said parameter signal processing unit generating at least one outgoing control signal (60, 62) based upon one or more of said plurality of isolated overtone parameter signals.

5. Claims 14-16, 55-57, 89, are rejected under 35 U.S.C. 103(a) as being unpatentable over Lindemann et al. in view of Suzuki (5,981,859).

Lindemann et al. are discussed above. Lindemann et al. do not disclose MIDI.

However, Suzuki disclosed a system (figure 6) for control signal generation, wherein said outgoing control signal comprises a signal of MIDI format (figure 56).

It would have been obvious to one of ordinary skill at the time of the invention to utilize the teachings of Suzuki with Lindemann et al., since Lindemann et al. disclose that the input device could be a keyboard.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marlon T. Fletcher whose telephone number is 571-272-2063. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on 571-272-1988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MTF  
03/19/2007

  
Marlon Fletcher  
Primary Examiner